

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application. Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

#### **Listing of Claims:**

1. (Currently amended) For use with a search engine that processes user queries, a system that locates documents containing words corresponding to a user query comprising:

a processor;

memory;

an infrequent word identifier that identifies infrequent words that occur in less than a threshold number of documents;

a frequent word index that maps the location of documents that contain words that occur in more than the threshold number of documents;

an infrequent word index, maintained separately from the frequent word index, that maps the location of documents that contain the infrequent words;  
and

an index scanning component that, in response to a query containing an infrequent word, scans the infrequent word index to find the location of documents containing the infrequent word.

Type of Response: Amendment  
Application Number: 10/761,160  
Attorney Docket Number: 305335.01  
Filing Date: Jan 20, 2004

2. (Original) The system of claim 1 wherein the frequent word index is stored by document.
3. (Original) The system of claim 1 wherein the frequent word index is partitioned by document.
4. (Original) The system of claim 3 wherein the frequent word index is distributed across multiple computing systems.
5. (Original) The system of claim 1 wherein the infrequent word index is stored by document.
6. (Original) The system of claim 1 wherein the infrequent word index is partitioned by document.
7. (Previously Presented) The system of claim 6 wherein the infrequent word index is distributed across multiple computing systems.
8. (Original) The system of claim 1 wherein the infrequent word index is stored by word.
9. (Original) The system of claim 1 wherein the infrequent word index is partitioned by word.
10. (Previously Presented) The system of claim 9 wherein the infrequent word index is stored on a single computing system.

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11. (Original) The system of claim 10 wherein the index scanning component, in response to a user query containing an infrequent word, retrieves document locations for documents having the infrequent word from the infrequent word index and transmits the retrieved document locations to computer systems containing frequent word indexes for the retrieved documents.

12. (Previously Presented) The system of claim 1 further comprising an index cache associated with the infrequent word index that stores document locations for recently queried infrequent words.

13. (Previously Presented) For use with a search engine that processes user queries, a method that searches a set of documents for documents containing terms found in a user query comprising:

- scanning the set of documents and gathering infrequent words that occur fewer times than a threshold number in the set of documents;
- constructing an infrequent word index that maps the infrequent words to locations of documents that contain the infrequent words;
- constructing a frequent word index, separately maintained from the infrequent word index, that maps frequent word that occur in a number of documents of the set of documents that is greater than the threshold amount to locations of documents that contain the frequent words;
- examining the terms in the user query to identify infrequent words; and
- searching the infrequent word index for the identified infrequent words.

14. (Previously Presented) The method of claim 13 further comprising storing the infrequent word index in a dedicated computer system.
15. (Previously Presented) The method of claim 13 further comprising storing the infrequent word index in dedicated partitions on computer systems that store the frequent word index.
16. (Previously Presented) The method of claim 13 further comprising storing the infrequent word index by word.
17. (Previously Presented) The method of claim 13 further comprising storing the infrequent word index by document.
18. (Previously Presented) A computer readable storage medium comprising computer-executable instructions that, when implemented, perform the method of claim 13.
19. (Previously Presented) For use with a search engine that processes user queries, a computer readable medium comprising computer-executable instructions that, when implemented, perform a method comprising:
- identifying infrequent words that occur in less than a threshold number of documents;
  - mapping, in a frequent word index, the location of documents that contain frequent words that occur in more than the threshold number of documents;

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- maintaining, separately from the frequent word index, an infrequent word index  
that maps the location of documents that contain the infrequent words;  
and  
in response to a query containing an infrequent word, scanning the infrequent  
word index to find the location of documents containing the infrequent  
word.
20. (Original) The computer readable medium of claim 19 wherein the infrequent  
word index is stored by document.
21. (Original) The computer readable medium of claim 19 wherein the infrequent  
word index is partitioned by document.
22. (Previously Presented) The computer readable medium of claim 19 wherein the  
infrequent word index is distributed across multiple computing systems.
23. (Previously Presented) The computer readable medium of claim 19 wherein the  
infrequent word index is stored by word.
24. (Original) The computer readable medium of claim 19 wherein the infrequent  
word index is partitioned by word.
25. (Previously Presented) The computer readable medium of claim 19 wherein the  
infrequent word index is stored on a single computing system.

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26. (Previously Presented) The computer readable medium of claim 19 further comprising creating an index cache associated with the infrequent word index that stores document locations for recently queried infrequent words.
27. (Previously Presented) For use with a search engine that processes user queries, an apparatus for searching set of documents for documents containing terms found in a user query comprising:
- means for scanning the set of documents and gathering infrequent words that occur a number of times that is less than a threshold amount in a number of documents;
  - means for constructing an infrequent word index that maps the infrequent words to locations of documents that contain the infrequent word;
  - means for constructing a frequent word index, separately maintained from the infrequent word index, that maps frequent words that occur in a number of documents that is greater than the threshold amount to location of documents that contain the frequent word;
  - means for examining the terms in the user query to identify infrequent words;
  - and
  - means for searching the infrequent word index for the identified infrequent words.

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